

- **We've spent years trying to make artificial intelligence-powered entities confess their love for us.**
- **But that's futile, experts say, because the AI of today can't feel empathy, let alone love.**
- **There are also real dangers to forging genuine one-sided relationships with an AI, the experts warn.**

Hikikomori (Japanese: ヒキコロリ or ヒキコロ, lit. "pulling inward, being confined"), also known as **severe social withdrawal**,^{[1][2][3][4][5]} is total withdrawal from society and seeking extreme degrees of **social isolation** and confinement.^[6] *Hikikomori* refers to both the phenomenon in general and the recluses themselves. The concept is primarily recognized only in Japan, although similar concepts exist in other languages and cultures. *Hikikomori* have been described as **loners** or "modern-day **hermits**".

^[7] Estimates suggest that half a million Japanese youths have become social **recluses**,

^[8] as well as more than half a million middle-aged individuals.^[9]

While many people feel the pressures of the outside world, *hikikomori* react by complete social withdrawal. In some more severe cases, they isolate themselves in their bedrooms for months or years at a time.^[15] They usually have few or no friends. In interviews with current or recovering *hikikomori*, media reports and documentaries have captured the strong levels of psychological distress and angst felt by these individuals.

Hikikomori is similar to the social withdrawal exhibited by some people with **autism spectrum disorder**. This has led some psychiatrists to suggest that *hikikomori* may be affected by autism spectrum disorder and other disorders that affect social integration, but that their disorders are altered from their typical Western presentation because of Japanese sociocultural pressures.^[27] Suwa & Hara (2007) discovered that 5 of 27 cases of *hikikomori* had a high-functioning **pervasive developmental disorder** (HPDD), and 12 more had other disorders or mental diseases (6 cases of personality disorders, 3 cases of obsessive-compulsive disorder, 2 cases of depression, 1 case of slight intellectual impairment); 10 out of 27 had primary *hikikomori*.

In 2018, a Japanese civil servant named Akihiko Kondo popped the big question to the love of his life.

She replied: "I hope you'll cherish me."

Kondo married her, but this was no flesh-and-blood woman. Instead, she was an artificial intelligence-powered hologram of the virtual idol Hatsune Miku — a pop star in anime-girl form.

The marriage wasn't legally recognized, but Kondo, a self-professed "fictosexual," went on to have a loving relationship with his "wife" for two years, until the company behind AI-Miku terminated her existence in March 2020.

Experts told Insider that it's futile to expect the AIs that exist right now to love us back. At the moment, these bots are the customer-facing end of an algorithm and nothing more.

"AI is the product of mathematics, coding, data, and powerful computing tech to pull it all together. When you strip AI back to the essentials, it's just a very good computer program. So the AI is not expressing desire or love, it's just following a code," Maria Hennessy, an associate professor of clinical psychology at the James Cook University in Singapore, told Insider.

Neil McArthur, a professor of applied ethics at the University of Manitoba, told Insider that the allure of AI lies in how familiar it feels. Its humanlike characteristics, however, don't come from it, but are instead a reflection of its human creators.

- Many users report forming human-type relationships with personal intelligent assistants.
- People respond positively to AI's emotional capability and performance efficacy, moderated by trust.
- The ability to empathize with users is one of the features of emotionally attractive AI.

Song et al. explain that their research reveals how showing empathy is essential for users to feel love toward an intelligent assistant. They recognize that an intelligent assistant's "emotional capacity to empathize with users" produces a more pronounced effect on a user's feelings of love than merely efficient performance. They recognize that trust disposition is also a factor, as their results demonstrate that users who had a high trust disposition were more likely to develop both intimacy and feelings of passion when an intelligent assistant demonstrated a strong emotional capability—in other words, to develop passionate feelings for a highly efficient intelligent assistant.

As AI continues to evolve, so does the research examining the role it will play in our lives, both personally and professionally.

Xia Song et al. (2022) used a theory of love to explore whether humans could develop romantic feelings for artificial intelligence (AI).^[i] They note that an increasing number of IT applications are based on AI, and due to their high levels of cognitive and emotional acuity, people should be able to form human-type relationships with intelligent personal assistants. Analyzing survey data, they found that people can indeed cultivate passion and intimacy for an AI application that resembles the interpersonal experience between people. They note these feelings relate to commitment—which promotes the use of such AI assistants and is influenced by AI's emotional capability and performance efficacy—moderated by trust.